

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION**

DISINTERMEDIATION SERVICES, INC.,

Plaintiff,

v.

BATIA INFOTECH,

Defendant.

Case No. 1:22-cv-1261

JURY TRIAL DEMANDED

COMPLAINT

Plaintiff Disintermediation Services, Inc. (“Plaintiff” or “Disintermediation”), by and through its undersigned counsel, brings this Complaint against Batia InfoTech (“Defendant” or “ProProfs”) and alleges as follows:

NATURE OF THE ACTION

1. This is a civil action arising under 35 U.S.C. § 271 for Defendant’s infringement of Disintermediation’s Patent No. 11,240,183 (“the ’183 Patent”); Patent No. 11,336,597 (“the ’597 Patent”); Patent No. 11,349,787 (“the ’787 Patent”); and Patent No. 11,418,466 (“the ’466 Patent”) (collectively the “Patents-In-Suit”).

PARTIES

2. Plaintiff Disintermediation Services, Inc. is a Delaware corporation with a place of business at 6778 Rattle Run Rd., St. Clair, MI.

3. Upon information and belief, defendant ProProfs, which sells services and products using the name ProProfs, is a California corporation with physical locations in Austin, TX from which it regularly conducts business related to this action.

JURISDICTION AND VENUE

4. This action arises under the patent laws of the United States, Title 35 of the United States Code.

5. This Court has personal jurisdiction over Defendant. Defendant has purposefully availed themselves of the privileges of conducting business in the United States and in the State of Texas by engaging in continuous and systematic business activities by placing goods into the stream of commerce through an established distribution channel with the expectation that they, or third-party products incorporating them, will be purchased by consumers in this District.

6. Defendant has derived substantial revenues from its infringing acts occurring within the United States and this District.

7. This Court has subject matter jurisdiction over the matters pleaded herein under 28 U.S.C. §§1331 and 1338(a).

8. Venue in this Court is proper pursuant to 28 U.S.C. §§ 1391(b), (c) and 1400(b). Upon information and belief, Defendant has committed substantial acts of infringement in this Judicial District and has regular and established places of business within this District. ProProfs maintains an established of business within this district at least at 2028 E Ben White Blvd #240-1437, Austin TX.

DISINTERMEDIATION AND INVENTORS BACKGROUND

9. Disintermediation developed and sells software that supports omnichannel communications.

10. Disintermediation launched its website offering for sale web chat services in 2011.

11. Disintermediation built implementations of its products on both Amazon Web Services and Microsoft Azure.

12. Since launching, Disintermediation has handled over one million chat messages.

13. Disintermediation continues to offer its web chat services for sale on its website isavailable.com.

14. Disintermediation has marked its services and products as patented by listing the Patents-In-Suit on its website.

15. The Patents-in-Suit originate from the work done by Disintermediation in building its web chat services.

16. Disintermediation obtained the Patents-in-Suit via assignment directly from the inventors, who were co-founders of Disintermediation.

17. Disintermediation's software included numerous technological improvements that were captured in a family of patent applications. The Patents-In-Suit issued from this family of patent applications ("Patents-In-Suit Family").

18. Co-inventor John Patrick Dandison is a co-founder of Disintermediation. Since 2005 he has worked in the software development field, including as a software developer for companies such as Bank of America and Skanska. Currently, John is Principal Program Manager, Identity at Microsoft.

19. Co-inventor Paul Schottland has a BA degree from the University of the South, and a Juris Doctorate, Law from Samford University. Paul is also a co-founder of Disintermediation. Previously, Paul worked for over a decade at Microsoft and for the last ten years has worked as Vice President of Engineering at many leading software development technology companies. Paul is the CEO of Disintermediation.

20. Co-inventor James Johnson has a BS degree from Auburn University, and a Juris Doctorate, Law from Samford University. James has practiced and is currently practicing law focusing on bankruptcy and healthcare fraud cases.

PATENT PROSECUTION AND EXAMINATION

21. Examiners at the United States Patent and Trademark Office (“USPTO”) review patent applications to determine whether a claimed invention should be granted a patent.

22. In general, it is essential that a Patent Examiner review the technical information disclosed in a patent application and compare it to the state of the art. This involves reading and understanding a patent application, and then searching the prior art to determine what technological contribution the application teaches the public.

23. The work of a Patent Examiner includes searching prior patents, scientific literature databases, and other resources for prior art. Then, an Examiner reviews the claims of the patent application substantively to determine whether each complies with the legal requirements for granting of a patent. A claimed invention must meet patentability requirements including statutory subject matter, novelty, inventive step or non-obviousness, industrial application (or utility) and sufficiency of disclosure, and examiners must apply federal laws (Title 35 of the United States Code), rules, judicial precedents, and guidance from agency administrators.

24. The USPTO lays out strict technical pre-requisites for Patent Examiners. To have signatory authority, Examiners must pass a test equivalent to the Patent Bar. All Examiners must have a college degree in either engineering or science. Examiners are assigned to “Art Units,” typically in groups of 8-15 Examiners in the same area of technology. Thus, by way of required background and work experience, Examiners have special knowledge and skill concerning the technologies that they examine and those examined in their particular Art Unit.

25. Examining a patent application includes the steps of:

- reviewing patent applications to determine if they comply with basic format, rules and legal requirements;

- determining the scope of the invention claimed by the inventor;
- determining that the claimed invention is subject matter eligible;
- searching for relevant technologies to compare found similar prior inventions with the invention claimed in the patent application; and
- communicating their findings related to the patentability of an applicant's invention via a written action to inventors/patent practitioners.

26. In regard to determining whether the claimed invention is subject-matter eligible, the Examiner starts by determining the broadest reasonable interpretation (BRI) of the claim. The BRI sets the boundaries of the coverage sought by the claim. *See* Manual of Patent Examining Procedure § 2106, 9th ed. Rev. 10.2019 (Jun. 2020) (hereinafter “MPEP”).

27. There are two criteria to determine if the claims are subject matter eligible. *See* MPEP § 2106.

28. For the first criteria, the Examiner determines if the claimed invention falls within one of the four categories defined in 35 U.S.C. § 101. *See* MPEP § 2106 I.

29. For the second criteria, the Examiner determines if the claims qualify as patent-eligible subject matter using the two-step Alice/Mayo test. *See* MPEP § 2106 I.

30. In the first step of the Alice/Mayo test, the Examiner determines if the claims taken as a whole are directed to a judicial exception. The claims are subject matter eligible if they are not directed to a judicial exception. If the claims, however, are directed to a judicial exception, the Examiner performs the second step of the Alice/Mayo test. In the second step, the Examiner searches for an inventive concept. An inventive concept is found by an element or combination of elements of a claim that are sufficient to ensure that the claim amounts to significantly more than the judicial exception. Claims that recite an inventive concept, *e.g.*, additional elements that amount

to significantly more than the judicial exception, are subject matter eligible. *See* MPEP § 2106 II and III and § 2106.05.

31. Communication of the findings as to the patentability of the claims is done by way of one or more Office Actions. In these Office Actions, the Examiner accepts or rejects proposed claims filed by the applicant and provides reasons for any rejections. The applicant is then permitted to file a Response to the Office Action, in which the claims may be amended to address issues raised by the Examiner, or the applicant may state reasons why the Examiner's findings are incorrect. If an applicant disagrees with a Final Rejection by an Examiner, the applicant may file an appeal with the Patent Trial and Appeal Board ("PTAB").

32. During prosecution of an application, if the Examiner determines that the application and claims meet all the requirements for patentability, the claims are duly allowed, and after an issue fee is paid, the patent is issued.

33. A patent duly allowed and issued by the USPTO is presumptively valid and becomes the property of the inventor or assignee.

34. A "Continuation Application" is one where prior to issuance, the inventor applies for an additional, related patent. A Continuation Application employs substantially the same invention disclosure as the previous, allowed application, but seeks new or different claims.

ASSERTED PATENTS

U.S. Patent No. 11,240,183

35. Disintermediation is the owner by assignment of U.S. Patent No. 11,240,183 ("the '183 Patent"). The '183 Patent is entitled "Two-way real time communication system (RTC) that allows asymmetric participation in conversations across multiple electronic platforms." The '183 Patent was issued on February 1, 2022. A true and correct copy of the '183 Patent is attached as **Exhibit A**.

36. The '183 Patent describes “illustrative systems and methods involving the computer, protocol, communications, and internet-related fields.” Ex. A, Col. 3, lines 12-14 (hereinafter 3:12-14).

37. The '183 Patent also includes descriptions of “[v]arious implementations [that] also provide for management of the communication between the initiator from a website or dedicated application, to various responders using a variety of RTC communication methods.” Ex. A, 3:18-21.

38. The claimed inventions in the '183 Patent are directed to new and improved computer functionality, as well as technological processes and systems, that address problems rooted in and arising from computer technology.

39. The background section of the '183 Patent identifies a number of deficiencies in prior art systems such as technology where “(1) both parties sharing a common communications protocol (email, text messaging/SMS, instant messaging, etc.); (2) the initiating party being required to know the recipients addresses or other identifying information prior to being able to initiate a communication; (3) both parties being identified to the other during the course of the communication by the RTC systems.” Ex. A, 1:60-67.

40. In view of the identified deficiencies of prior systems, the '183 Patent claimed technical improvements to the known computer functionality to solve some of the identified deficiencies. “Various implementations also provide for management of the communication between the initiator from a website or dedicated application, to various responders using a variety of RTC communication methods. In one implementation, these various responses are managed in such a way that the initiator sees them as unified responses within the internet website which the initiator is viewing and communicating with the responders. In some implementations, the initiator

does not need to provide a destination address for the communication, and the initiator may remain anonymous to both the system and the responders. In other implementations, the initiator may identify himself to responders.” Ex. A, 3:18-25.

41. The ’183 Patent further explains a technical improvement in “allowing communication using disparate forms of RTC, [where] an intermediary proxy can handle message stream convergence and routing.” Ex. A, 7:17-19.

42. The claims of the ’183 Patent include inventive concepts. The claims allow an unauthenticated user to communicate with one or more responders. Further, the unauthenticated user is not required to know the address or any other identifying information of the responder with which they are in communication. The identification of both parties is also not required to be known during the conversation. For example, the communication protocol and communication address of the parties do not have to be disclosed for the parties to communicate.

43. Such inventive concepts allow users to more quickly and efficiently begin conversing with relevant responders. For example, users were not required to register or provide any account or user information before starting a conversation.

44. Further, the claims describe how the conventional handling of digital messaging may be modified to implement these inventive concepts.

45. The ’183 Patent contains one independent claim and 20 total claims. Claim 1 is a system claim:

1. A system for web-based communication, the system comprising:
an electronic processor configured to:

receive a request from an unauthenticated user of a web browser for a web page;

send to the web browser from a first responder a question for the unauthenticated user, wherein the question is sent based on the request for the web page;

receive a first communication as part of a conversation from the unauthenticated user of the web browser, wherein the first communication comprises an answer to the question;

send the first communication to the first responder;

determine a conversation identifier for the conversation based on the first communication;

end the conversation with the first responder;

identify, based on the first communication, a second responder, wherein the second responder is different from the first responder;

determine a communication protocol of the second responder;

determine a communication address of the second responder;

send the first communication to the second responder based on the communication address of the second responder;

receive, from the communication address of the second responder, a first reply from the second responder based on the first communication;

determine the conversation identifier based on the first reply;

map the first reply to the web browser using the conversation identifier;

send the first reply to the web browser, wherein the first reply and the first communication do not include the communication address of the second responder.

46. The above disclosed limitations from the '183 Patent comprise various elements that coordinate the seamless communication between a web user and at least two responders. The claimed invention initially coordinates the communication between the web user and a first

responder. The claim then identifies a second responder that must be different than the first responder. The second responder sends a reply to the web user, and this reply is mapped to the same communication identifier as used with the first responder.

47. The independent claim of the '183 Patent, as a whole, provides significant benefits and improvements discussed previously that directly impact the capacity and functionality of the underlying computer software architecture, such as the storage and organization of conversations, communication modes and protocols, and communication addresses that are utilized to increase the functionality of communication systems with the ability to track and transition conversations between responders and between different communication modes, as well as increase the efficiency of computer systems by facilitating the transfer of communication channels and addresses faster relative to the prior art.

48. The claimed elements of the '183 Patent additionally constitute an unconventional technical solution (for example, a system that facilitates communication between an unauthenticated web user and a first responder, which may be a virtual agent, and seamlessly transferring the conversation to a second responder, such that the end user's conversation with the system continues with minimal disruption) to address a technical problem rooted in computer technology of coordinating, mapping, and facilitating communication between different end points that may use various different communication protocols.

49. Three Patent Examiners were involved in examining the application that matured into the '183 Patent, namely, Examiner Chhian Ling, Primary Examiner Arvin Eskandamia, and Supervisory Examiner Gil H. Lee. Examiner Chhian Ling has been the patent Examiner in every application in the Patents-In-Suit Family.

50. On information and belief, Primary examiner Arvin Eskandamia was consulted

and authorized allowance of the '183 Patent.

51. On information and belief, the Patent Examiners involved in the examination of the application that became the '183 Patent examined the application in accordance with the rules and guidance of the MPEP.

52. Although the publicly available prosecution history of the '183 Patent does not contain a complete summary of various patent examiner searches, it indicates that the Examiner conducted prior art and/or other searches using at least the patent examiner systems Examiner Automated Search Tool ("EAST") and InnovationQ Plus, and performed searches on at least September 3, 2021; and December 17, 2021. The Patent Examiner formally cited at least four separate references during the prosecution of the '183 Patent.

53. Among the prior art references located by and cited by the Patent Examiner, and the references submitted by the applicant and considered by the Patent Examiners during the prosecution of the '183 Patent, at least 23 patent references and 1 non-patent reference were formally considered by the Patent Examiners, as indicated on the front two pages of the issued '183 Patent.

54. On information and belief, it is the practice of the USPTO not to cite excessive cumulative art, in other words, in this instance, the art cited by the Patent Examiners is representative of considerable other art located by the USPTO and not cited. Further, on information and belief, it is the practice of the USPTO to discuss in its Office Actions those references of which the Patent Examiners are aware that most closely resemble the claimed inventions.

55. The '183 Patent was filed on September 29, 2020, and claims priority to October 17, 2011. The technology disclosed and claimed in the '183 Patent was not well understood, routine, or conventional at the time of the invention. To the contrary, the technology claimed in the '183

Patent was well ahead of the state of the art at the time of the invention.

56. On December 17, 2021, the USPTO issued a Notice of Allowance as to all of the pending claims 1-20.

57. As the claims of the '183 Patent were allowed, on information and belief, the Examiner determined after proper examination that the claims of the '183 Patent are directed to subject matter eligible material based on the framework described in MPEP available at the time of examination. The Examiner never rejected the claims of the '183 Patent or any other claims in the Patents-In-Suit Family as being directed to patent ineligible material.

58. The issued claims from the '183 Patent are patentably distinct from the at least 24 references identified and/or discussed during prosecution. That is, each of the 20 claims, as a whole—which include, e.g., an electronic processor that coordinates communication between an unauthenticated user and multiple responders that may use different communication protocols—were found to be patentably distinct from at least the 24 formally identified references.

59. The references cited during the examination of the '183 Patent represent patentably distinct means or methods to communicate over a network. By allowing the claims of the '183 Patent, each of the claims in the '183 Patent, as a whole was shown to be inventive, novel, and innovative over at least the 24 formally identified references.

60. Since each claim as a whole from the '183 Patent is inventive, novel, and innovative as compared to several specific patents and other publications, each claim as a whole, constitutes more than the application of well-understood, routine, and conventional activities.

61. The '183 Patent claims priority, as a continuation, to U.S. Patent Nos. 9,106,599; 9,894,019; and 10,841,253. In addition, the '183 Patent claims the benefit of U.S. Provisional App. No. 61/627,714. The Patents-In-Suit Family has been cited in at least 53 patent applications,

including applications filed by Microsoft; IBM; Intuit; T-Mobile; Sony; and Ericsson. Among the at least 53 patent applications, the USPTO has issued more than 34 patents.

62. The forward citations of the Patents-In-Suit Family reveal that the Patents-In-Suit Family, including the '183 Patent, and its claimed inventions are directed to specific methods and systems for an improved communication architecture. This allows for users to seamlessly communicate with one or more responders across a variety of communication modes, rather than merely disclosing an aspiration or result of that technology that would preempt the use of, or innovations in communication architectures.

U.S. Patent No. 11,336,597

63. Disintermediation is the owner by assignment of U.S. Patent No. 11,336,597 (“the ‘597 Patent”). The ‘597 Patent is entitled “Two-way real time communication system that allows asymmetric participation in conversations across multiple electronic platforms.” The ‘597 Patent issued on May 17, 2022. A true and correct copy of the ‘597 Patent is attached as **Exhibit B**.

64. The ‘597 Patent is a continuation of the ‘183 Patent discussed immediately above. The specifications of the ‘183 and ‘597 Patents are therefore substantially identical, and paragraphs 36-41 above regarding the specification and state of the art of the ‘183 Patent are incorporated by reference as if fully restated here in this section for the ‘597 Patent.

65. The claimed inventions in the ‘597 Patent are directed to new and improved computer functionality and technological processes and systems that address problems rooted in and arising from computer technology.

66. The claims of the ‘597 Patent include inventive concepts. The claims allow an unauthenticated user to communicate with one or more responders. Further, the unauthenticated user is not required to know the address or any other identifying information of the responder with which they are in communication. The identification of both parties is also not required to be known

during the conversation. For example, the communication protocol and communication address of the parties do not have to be disclosed for the parties to communicate.

67. Such inventive concepts allow users to more quickly and efficiently begin conversing with relevant responders. For example, users were not required to register or provide any account or user information before starting a conversation.

68. Further, the claims describe how the conventional handling of digital messaging may be modified to implement these inventive concepts.

69. The '597 Patent contains two independent claims and 20 total claims. Claim 1 is a system claim:

1. A system for web-based communication, the system comprising:

an electronic processor configured to:

receive a communication request, from a web browser of an unauthenticated user of a web page, initiated from the web page;

send to the web browser from a first responder a request for information for the unauthenticated user of the web browser as part of a conversation, wherein the request for information is sent based on the communication request;

receive a first communication as part of the conversation from the unauthenticated user of the web browser;

determine a conversation identifier for the conversation based on the first communication;

identify, based on the first communication, a second responder, wherein the second responder is different from the first responder;

determine a communication protocol of the second responder;

send the first communication to the second responder based on the communication protocol of the second responder;

receive, from the second responder, a first reply from the second

responder based on the first communication;

determine the conversation identifier based on the first reply;

map the first reply to the web browser using the conversation identifier; and

send the first reply to the web browser.

70. The above disclosed limitations from the '597 Patent comprise various elements that coordinate the seamless communication between a web user and at least two responders. The claimed invention initially coordinates the communication between the web user and a first responder. The claim then identifies a second responder that must be different than the first responder. The second responder sends a reply to the web user, and this reply is mapped to the same communication identifier as used with the first responder.

71. The independent claim of the '597 Patent, as a whole, provides significant benefits and improvements discussed previously that directly impact the capacity and functionality of the underlying computer software architecture, such as the storage and organization of conversations, communication modes and protocols, and communication addresses that are utilized to increase the functionality of communication systems with the ability to track and transition conversations between responders and between different communication modes, as well as increase the efficiency of computer systems by facilitating the transfer of communication channels and addresses faster relative to the prior art.

72. The claimed elements of the '597 Patent additionally constitute an unconventional technical solution (for example, a system that facilitates communication between an unauthenticated web user and a first responder, which may be a virtual agent, and seamlessly transferring the conversation to a second responder, such that the end user's conversation with the

system continues with minimal disruption) to address a technical problem rooted in computer technology of coordinating, mapping, and facilitating communication between different end points that may use various different communication protocols.

73. Two Patent Examiners were involved in examining the application that matured into the '597 Patent, namely, Examiner Chhian Ling and Primary Examiner Arvin Eskandamia. Examiner Chhian Ling has been the patent Examiner in every application in the Patents-In-Suit Family.

74. On information and belief, Primary examiner Arvin Eskandamia was consulted and authorized allowance of the '597 Patent.

75. On information and belief, the Patent Examiners involved in the examination of the application that became the '597 Patent examined the application in accordance with the rules and guidance of the MPEP.

76. Although the publicly available prosecution history of the '597 Patent does not contain a complete summary of various patent examiner searches, it indicates that the Examiner conducted prior art and/or other searches using at least the patent examiner systems Patents End-to-End (PE2E) Search and InnovationQ Plus, and performed searches on at least March 6, 2022; March 18, 2022; and March 22, 2022.

77. On information and belief, PE2E is a modern, web-based platform that incorporates artificial intelligence and provides for additional search functionalities. For example, PE2E provides access to more than 69 million foreign patent documents with full machine translations in English.

78. Among the prior art references located by and cited by the Patent Examiner, and the references submitted by the applicant and considered by the Patent Examiners during the

prosecution of the '597 Patent, at least 28 patent references and 1 non-patent reference were formally considered by the Patent Examiners, as indicated on the front two pages of the issued '597 Patent.

79. On information and belief, it is the practice of the USPTO not to cite excessive cumulative art, in other words, in this instance, the art cited by the Patent Examiners is representative of considerable other art located by the USPTO and not cited. Further, on information and belief, it is the practice of the USPTO to discuss in its Office Actions those references of which the Patent Examiners are aware that most closely resemble the claimed inventions.

80. The '597 Patent was filed on January 11, 2022, and claims priority to October 17, 2011. The technology disclosed and claimed in the '597 Patent was not well understood, routine, or conventional at the time of the invention. To the contrary, the technology claimed in the '597 Patent was well ahead of the state of the art at the time of the invention.

81. On April 4, 2022, the USPTO issued a Notice of Allowance as to all of the pending claims 1-20.

82. As the claims of the '597 Patent were allowed, on information and belief, the Examiner determined after proper examination that the claims of the '597 Patent are directed to subject matter eligible material based on the framework described in MPEP available at the time of examination. The Examiner never rejected the claims of the '597 Patent or any other claims in the Patents-In-Suit Family as being directed to patent ineligible material.

83. The issued claims from the '597 Patent are patentably distinct from the at least 29 references identified and/or discussed during prosecution. That is, each of the 20 claims, as a whole—which include, e.g., an electronic processor that coordinates communication between an unauthenticated user and multiple responders that may use different communication protocols—

were found to be patentably distinct from at least the 29 formally identified references.

84. The references cited during the examination of the '597 Patent represent patentably distinct means or methods to communicate over a network. By allowing the claims of the '597 Patent, each of the claims in the '597 Patent, as a whole was shown to be inventive, novel, and innovative over at least the 29 formally identified references.

85. Since each claim as a whole from the '597 Patent is inventive, novel, and innovative as compared to several specific patents and other publications, each claim as a whole, constitutes more than the application of well-understood, routine, and conventional activities.

86. The '597 Patent claims priority, as a continuation, to U.S. Patent Nos. 11,240,183; 9,106,599; 9,894,019; and 10,841,253. In addition, the '597 Patent claims the benefit of U.S. Provisional App. No. 61/627,714. The Patents-In-Suit Family has been cited in at least 53 patent applications, including applications filed by Microsoft; IBM; Intuit; T-Mobile; Sony; and Ericsson. Among the at least 53 patent applications, the USPTO has issued more than 34 patents.

87. The forward citations of the Patents-In-Suit Family reveal that the Patents-In-Suit Family, including the '597 Patent, and its claimed inventions are directed to specific methods and systems for an improved communication architecture. This allows for users to seamlessly communicate with one or more responders across a variety of communication modes, rather than merely disclosing an aspiration or result of that technology that would preempt the use of, or innovations in communication architectures.

U.S. Patent No. 11,349,787

88. Disintermediation is the owner by assignment of U.S. Patent No. 11,349,787 ("the '787 Patent"). The '787 Patent is entitled "Two-way real time communication system that allows asymmetric participation in conversations across multiple electronic platforms." The '787 Patent issued on May 31, 2022. A true and correct copy of the '787 Patent is attached as **Exhibit C**.

89. The '787 Patent is a continuation of the '183 Patent discussed immediately above. The specifications of the '183 and '787 Patents are therefore substantially identical, and paragraphs 36-41 above regarding the specification and state of the art of the '183 Patent are incorporated by reference as if fully restated here in this section for the '787 Patent.

90. The claimed invention in the '787 Patent is directed to new and improved computer functionality and technological processes and systems that address problems rooted in and arising from computer technology.

91. The claims of the '787 Patent include inventive concepts. The claims allow an unauthenticated user to communicate with one or more responders. Further, the unauthenticated user is not required to know the address or any other identifying information of the responder with which they are in communication. The identification of both parties is also not required to be known during the conversation. For example, the communication protocol and communication address of the parties do not have to be disclosed for the parties to communicate. In addition, a communication is continued across multiple webpages or upon a webpage reload.

92. Such inventive concepts allow users to more quickly and efficiently begin conversing with relevant responders. In addition, the inventive concepts allow users to naturally continue a conversation while reloading or loading different webpages, where the conversation is requested and provided on the reloaded or different webpage.

93. Further, the claims describe how the conventional handling of digital messaging may be modified to implement these inventive concepts. In addition, the claims describe how a web browser loading a webpage may be modified by instructing the web page to request a previous conversation. This modification leads the web browser to provide an uninterrupted conversational display for a user even across different web pages.

94. The '787 patent contains two independent claims and a total of 20 claims. Claim 1 is a system claim:

1. A system for web-based communication, the system comprising:
an electronic processor configured to:

receive a communication request, from a web browser of an unauthenticated user of a web page, based on a request from the web browser for the web page;

send to the web browser from a first responder a request for information for the unauthenticated user of the web browser as part of a conversation, wherein the request for information is sent based on the communication request;

receive a first communication as part of the conversation from the user, wherein the first communication comprises a response to the request for information;

determine a conversation identifier for the conversation based on the first communication;

store, in a persistent data store, a first association between the request for information and the conversation identifier;

store, in the persistent data store, a second association between the first communication and the conversation identifier;

receive a request from the web browser for the conversation;

determine, based on the request for the conversation, the conversation identifier associated with conversation;

retrieve, from the persistent data store, the request for information and the first communication using the conversation identifier;

send, in response to the request for the conversation, the request for information and the first communication to the web browser.

95. The above disclosed limitations from the '787 Patent comprise various elements that coordinate the seamless communication between a web user and responders. The claimed invention

initially coordinates the communication between the web user and a first responder. The communication between the web user and the first responder is stored and is later retrieved for the web user.

96. The claims of the '787 Patent, as a whole, provide significant benefits and improvements discussed previously that directly impact the capacity and functionality of the underlying computer software architecture, such as the storage and organization of conversations, communication modes and protocols, and communication addresses that are utilized to increase the functionality of communication systems with the ability to track and transition conversations between responders and between different communication modes, as well as increase the efficiency of computer systems by facilitating the transfer of communication channels and addresses faster relative to the prior art.

97. The claimed elements of the '787 Patent additionally constitute an unconventional technical solution (for example, a system that facilitates communication between an unauthenticated web user and a first responder, which may be a virtual agent, and providing the user's conversation to the user, such that the end user's conversation with the system continues with minimal disruption) to address a technical problem rooted in computer technology of coordinating, mapping, and facilitating communication between different end points that may use various different communication protocols.

98. Two Patent Examiners were involved in examining the application that matured into the '787 Patent, namely, Examiner Chhian Ling and Primary Examiner Arvin Eskandamia. Examiner Chhian Ling has been the patent Examiner in every application in the Patents-In-Suit Family.

99. On information and belief, Primary examiner Arvin Eskandamia was consulted

and authorized allowance of the '787 Patent.

100. On information and belief, the Patent Examiners involved in the examination of the application that became the '787 Patent examined the application in accordance with the rules and guidance of the MPEP.

101. Although the publicly available prosecution history of the '787 Patent does not contain a complete summary of various patent examiner searches, it indicates that the Examiner conducted prior art and/or other searches using at least the patent examiner systems Patents End-to-End (PE2E) Search and InnovationQ Plus, and performed searches on at least March 6, 2022; April 1, 2022; and April 5, 2022. The Patent Examiner formally cited at least four separate references during the prosecution of the '787 Patent.

102. On information and belief, PE2E is a modern, web-based platform that incorporates artificial intelligence and provides for additional search functionalities. For example, PE2E provides access to more than 69 million foreign patent documents with full machine translations in English.

103. Among the prior art references located by and cited by the Patent Examiner, and the references submitted by the applicant and considered by the Patent Examiners during the prosecution of the '787 Patent, at least 30 patent references and 1 non-patent reference were formally considered by the Patent Examiners, as indicated on the front two pages of the issued '787 Patent.

104. On information and belief, it is the practice of the USPTO not to cite excessive cumulative art, in other words, in this instance, the art cited by the Patent Examiners is representative of considerable other art located by the USPTO and not cited. Further, on information and belief, it is the practice of the USPTO to discuss in its Office Actions those references of which

the Patent Examiners are aware that most closely resemble the claimed inventions.

105. The '787 Patent was filed on January 11, 2022, and claims priority to October 17, 2011. The technology disclosed and claimed in the '787 Patent was not well understood, routine, or conventional at the time of the invention. To the contrary, the technology claimed in the '787 Patent was well ahead of the state of the art at the time of the invention.

106. On April 19, 2022, the USPTO issued a Notice of Allowance as to all of the pending claims 1-20.

107. As the claims of the '787 Patent were allowed, on information and belief, the Examiner determined after proper examination that the claims of the '787 Patent are directed to subject matter eligible material based on the framework described in MPEP available at the time of examination. The Examiner never rejected the claims of the '787 Patent or any other claims in the Patents-In-Suit Family as being directed to patent ineligible material.

108. The issued claims from the '787 Patent are patentably distinct from the at least 31 references identified and/or discussed during prosecution. That is, each of the 20 claims, as a whole—which include, e.g., an electronic processor that coordinates communication between an unauthenticated user and responders that may use different communication protocols—were found to be patentably distinct from at least the 31 formally identified references.

109. The references cited during the examination of the '787 Patent represent patentably distinct means or methods to communicate over a network. By allowing the claims of the '787 Patent, each of the claims in the '787 Patent, as a whole was shown to be inventive, novel, and innovative over at least the 31 formally identified references.

110. Since each claim as a whole from the '787 Patent is inventive, novel, and innovative as compared to several specific patents and other publications, each claim as a whole, constitutes

more than the application of well-understood, routine, and conventional activities.

111. The '787 Patent claims priority, as a continuation, to U.S. Patent Nos. 11,240,183; 9,106,599; 9,894,019; and 10,841,253. In addition, the '787 Patent claims the benefit of U.S. Provisional App. No. 61/627,714. The Patents-In-Suit Family has been cited in at least 53 patent applications, including applications filed by Microsoft; IBM; Intuit; T-Mobile; Sony; and Ericsson. Among the at least 53 patent applications, the USPTO has issued more than 34 patents.

112. The forward citations of the Patents-In-Suit Family reveal that the Patents-In-Suit Family, including the '787 Patent, and its claimed inventions are directed to specific methods and systems for an improved communication architecture. This allows for users to seamlessly communicate with one or more responders across a variety of communication modes, rather than merely disclosing an aspiration or result of that technology that would preempt the use of, or innovations in communication architectures.

U.S. Patent No. 11,418,466

113. Disintermediation is the owner by assignment of U.S. Patent No. 11,418,466 ("the '466 Patent"). The '466 Patent is entitled "Two-way real time communication system that allows asymmetric participation in conversations across multiple electronic platforms." The '466 Patent issued on May 31, 2022. A true and correct copy of the '466 Patent is attached as **Exhibit D**.

114. The '466 Patent is a continuation of the '787 Patent discussed immediately above. The specifications of the '183, '466 and '787 Patents are therefore substantially identical, and paragraphs 36-41 above regarding the specification and state of the art of the '183 Patent are incorporated by reference as if fully restated here in this section for the '466 Patent.

115. The claimed invention in the '466 Patent is directed to new and improved computer functionality and technological processes and systems that address problems rooted in and arising from computer technology.

116. The claims of the '466 Patent include inventive concepts. The claims allow a single responder to communicate with two different users with the users using different communication protocols. The claims also allow an unauthenticated user to communicate with one or more responders. Further, the unauthenticated user is not required to know the address or any other identifying information of the responder with which they are in communication. The identification of both parties is also not required to be known during the conversation. For example, the communication protocol and communication address of the parties do not have to be disclosed for the parties to communicate. In addition, a communication is continued across multiple webpages or upon a webpage reload.

117. Such inventive concepts allow users to more quickly and efficiently begin conversing with relevant responders. For example, users were not required to register or provide any account or user information before starting a conversation. In addition, users were not forced to use a specific type or the same communication protocol of responders before communicating with responders.

118. Further, the claims describe how the conventional handling of digital messaging may be modified to implement these inventive concepts. For example, claimed elements describe modifying a messaging system allowing a single responder to converse in real-time with multiple different users using different communication protocols. This modification leads to an improvement to the functioning of a computer system in that a single messaging system could be used to support communication across disparate communication protocols. Thus, eliminating the need for back end systems specific to each supported communication protocol used by responders.

119. The '466 patent contains two independent claims and a total of 20 claims. Claim 1 is a system claim:

1. A system for web-based communication, the system comprising:
an electronic processor configured to:
 - receive a first communication request, from a web browser of a first user, based on a request from the web browser for a web page, wherein the first user is an unauthenticated user of the web page;
 - send, via a first active communication protocol, to the web browser a first request for information for the first user from a first responder as part of a first conversation, wherein the first request for information is sent based on the first communication request;
 - store, in a persistent data store, a first association between the first request for information and a first conversation identifier;
 - receive, via the first active communication protocol, a first communication as part of the first conversation from the first user, wherein the first communication comprises a response to the first request for information;
 - identify the first conversation identifier for the first conversation based on the receipt of the first communication;
 - store, in the persistent data store, a second association between the first communication and the first conversation identifier;
 - receive, from the first responder, a second communication as part of a second conversation with a second user, wherein the second user is different from the first user;
 - determine a second active communication protocol for the second user, wherein the second active communication protocol is different from the first active communication protocol;
 - send, via the second active communication protocol, the second communication to a device of the second user;
 - identify a second conversation identifier for the second conversation based on the second communication;
 - store, in the persistent data store, a third association between the second communication and the second conversation identifier;
 - receive, via the second active communication protocol, a third communication as part of a second conversation from the device of the second user;

identify the second conversation identifier for the second conversation based on the third communication;

store, in the persistent data store, a fourth association between the third communication and the second conversation identifier; and

send to the first responder the third communication as part of a second conversation in response to the second communication.

120. The above disclosed limitations from the '466 Patent comprise various elements that coordinate the seamless communication between multiple users and responders using various communication protocols. The claimed invention initially coordinates the communication between the web user and a first responder using a first communication protocol. The first responder also communicates with a second user, different from the web user. The second user uses a second communication protocol, different from the first communication protocol, to communicate with the first responder.

121. The claims of the '466 Patent, as a whole, provide significant benefits and improvements discussed previously that directly impact the capacity and functionality of the underlying computer software architecture, such as allowing a responder to communicate with multiple users that utilize different communication protocols, the storage and organization of conversations, communication modes and protocols, and communication addresses that are utilized to increase the functionality of communication systems with the ability to as increase the efficiency of computer systems by facilitating the use of different communication channels and communications faster relative to the prior art.

122. The claimed elements of the '466 Patent additionally constitute an unconventional technical solution (for example, a system that facilitates communication between an unauthenticated web user and a first responder and between the first responder and a different user

utilizing different communication protocols, such that the end users are able to communication with a particular responder, regardless, of the communication protocol used by the end user) to address a technical problem rooted in computer technology of coordinating, mapping, and facilitating communication between different end points that may use various different communication protocols.

123. Two Patent Examiners were involved in examining the application that matured into the '466 Patent, namely, Examiner Chhian Ling and Primary Examiner Arvin Eskandamia. Examiner Chhian Ling has been the patent Examiner in every application in the Patents-In-Suit Family.

124. On information and belief, Primary examiner Arvin Eskandamia was consulted and authorized allowance of the '466 Patent.

125. On information and belief, the Patent Examiners involved in the examination of the application that became the '466 Patent examined the application in accordance with the rules and guidance of the MPEP.

126. Although the publicly available prosecution history of the '466 Patent does not contain a complete summary of various patent examiner searches, it indicates that the Examiner conducted prior art and/or other searches using at least the patent examiner systems Patents End-to-End (PE2E) Search and InnovationQ Plus.

127. On information and belief, PE2E is a modern, web-based platform that incorporates artificial intelligence and provides for additional search functionalities. For example, PE2E provides access to more than 69 million foreign patent documents with full machine translations in English.

128. Among the prior art references located by and cited by the Patent Examiner, and

the references submitted by the applicant and considered by the Patent Examiners during the prosecution of the '466 Patent, at least 66 patent references and 1 non-patent reference were formally considered by the Patent Examiners, as indicated on the front two pages of the issued '466 Patent.

129. On information and belief, it is the practice of the USPTO not to cite excessive cumulative art, in other words, in this instance, the art cited by the Patent Examiners is representative of considerable other art located by the USPTO and not cited. Further, on information and belief, it is the practice of the USPTO to discuss in its Office Actions those references of which the Patent Examiners are aware that most closely resemble the claimed inventions.

130. The '466 Patent was filed on May 10, 2022, and claims priority to October 17, 2011. The technology disclosed and claimed in the '466 Patent was not well understood, routine, or conventional at the time of the invention. To the contrary, the technology claimed in the '466 Patent was well ahead of the state of the art at the time of the invention.

131. On July 5, 2022, the USPTO issued a Notice of Allowance as to all of the pending claims 1-20.

132. As the claims of the '466 Patent were allowed, on information and belief, the Examiner determined after proper examination that the claims of the '466 Patent are directed to subject matter eligible material based on the framework described in MPEP available at the time of examination. The Examiner never rejected the claims of the '466 Patent or any other claims in the entire Patents-In-Suit Family as being directed to patent ineligible material.

133. The issued claims from the '466 Patent are patentably distinct from the at least 67 references identified and/or discussed during prosecution. That is, each of the 20 claims, as a

whole—which include, e.g., an electronic processor that coordinates communication between a responder and users that may use different communication protocols—were found to be patentably distinct from at least the 67 formally identified references.

134. The references cited during the examination of the '466 Patent represent patentably distinct means or methods to communicate over a network. By allowing the claims of the '466 Patent, each of the claims in the '466 Patent, as a whole was shown to be inventive, novel, and innovative over at least the 67 formally identified references.

135. Since each claim as a whole from the '466 Patent is inventive, novel, and innovative as compared to several specific patents and other publications, each claim as a whole, constitutes more than the application of well-understood, routine, and conventional activities.

136. The '466 Patent claims priority, as a continuation, to U.S. Patent Nos. 11,349,787; 11,240,183; 9,106,599; 9,894,019; and 10,841,253. In addition, the '466 Patent claims the benefit of U.S. Provisional App. No. 61/627,714. The Patents-In-Suit Family has been cited in at least 55 patent applications, including applications filed by Microsoft; IBM; Intuit; T-Mobile; Sony; and Ericsson. Among the at least 55 patent applications, the USPTO has issued more than 34 patents.

137. The forward citations of the Patents-In-Suit Family reveal that the Patents-In-Suit Family, including the '466 Patent, and its claimed inventions are directed to specific methods and systems for an improved communication architecture. This allows for users to seamlessly communicate with one or more responders across a variety of communication modes, rather than merely disclosing an aspiration or result of that technology that would preempt the use of, or innovations in communication architectures.

COUNT I – INFRINGEMENT OF U.S. PATENT NO. 11,240,183

138. Disintermediation incorporates by reference paragraphs 1 to 137 above as if fully

set forth herein.

139. On information and belief, ProProfs has infringed the '183 patent under 35 U.S.C. § 271, either literally and/or under the doctrine of equivalents, directly and/or indirectly.

140. Attached hereto as Exhibit E and incorporated into this complaint as alleged herein is a claim chart setting forth where in ProProfs' accused instrumentality each of the limitations of representative Claim 1 are found. On information and belief, the identified functionality was present in the accused instrumentality during the relevant times of infringement.

141. The foregoing claim chart is illustrative of ProProfs' infringement of the '183 patent. Disintermediation reserves the right to identify additional claims and accused instrumentalities in accordance with the Court's local rules and applicable scheduling orders.

142. On information and belief, ProProfs has contributed and is contributing to the infringement of the '183 patent because ProProfs knows that the infringing aspects of its accused instrumentality are made for use in an infringement and are not staple articles of commerce suitable for substantial non-infringing uses.

143. On information and belief, ProProfs has induced the infringement of the '183 patent, with knowledge of the '183 patent and that ProProfs' acts, including without limitation using, offering to sell, selling within and importing into the United States, ProProfs' accused instrumentalities, would aid and abet and induce infringement by customers, clients, partners, developers and end users of the accused instrumentalities.

144. ProProfs' acts of infringement have caused damage to Disintermediation and Disintermediation is entitled to recovery of damages from ProProfs in an amount subject to proof at trial.

145. On information and belief, ProProfs has acted with disregard of Disintermediation's

patent rights, without any reasonable basis for doing so, and has willfully infringed the '183 patent.

COUNT II – INFRINGEMENT OF U.S. PATENT NO. 11,336,597

146. Disintermediation incorporates by reference paragraphs 1 to 137 above as if fully set forth herein.

147. On information and belief, ProProfs has infringed the '597 patent under 35 U.S.C. § 271, either literally and/or under the doctrine of equivalents, directly and/or indirectly.

148. Attached hereto as Exhibit F and incorporated into this complaint as alleged herein is a claim chart setting forth where in ProProfs' accused instrumentality each of the limitations of representative Claim 1 are found. On information and belief, the identified functionality was present in the accused instrumentality during the relevant times of infringement.

149. The foregoing claim chart is illustrative of ProProfs' infringement of the '597 patent. Disintermediation reserves the right to identify additional claims and accused instrumentalities in accordance with the Court's local rules and applicable scheduling orders.

150. On information and belief, ProProfs has contributed and is contributing to the infringement of the '597 patent because ProProfs knows that the infringing aspects of its accused instrumentality are made for use in an infringement and are not staple articles of commerce suitable for substantial non-infringing uses.

151. On information and belief, ProProfs has induced the infringement of the '597 patent, with knowledge of the '597 patent and that ProProfs' acts, including without limitation using, offering to sell, selling within and importing into the United States, ProProfs' accused instrumentalities, would aid and abet and induce infringement by customers, clients, partners, developers and end users of the accused instrumentalities.

152. ProProfs' acts of infringement have caused damage to Disintermediation and

Disintermediation is entitled to recovery of damages from ProProfs in an amount subject to proof at trial.

153. On information and belief, ProProfs has acted with disregard of Disintermediation's patent rights, without any reasonable basis for doing so, and has willfully infringed the '597 patent.

COUNT III – INFRINGEMENT OF U.S. PATENT NO. 11,349,787

154. Disintermediation incorporates by reference paragraphs 1 to 137 above as if fully set forth herein.

155. On information and belief, ProProfs has infringed the '787 patent under 35 U.S.C. § 271, either literally and/or under the doctrine of equivalents, directly and/or indirectly.

156. Attached hereto as Exhibit G and incorporated into this complaint as alleged herein is a claim chart setting forth where in ProProfs' accused instrumentality each of the limitations of representative Claim 1 are found. On information and belief, the identified functionality was present in the accused instrumentality during the relevant times of infringement.

157. The foregoing claim chart is illustrative of ProProfs' infringement of the '787 patent. Disintermediation reserves the right to identify additional claims and accused instrumentalities in accordance with the Court's local rules and applicable scheduling orders.

158. On information and belief, ProProfs has contributed and is contributing to the infringement of the '787 patent because ProProfs knows that the infringing aspects of its accused instrumentality are made for use in an infringement and are not staple articles of commerce suitable for substantial non-infringing uses.

159. On information and belief, ProProfs has induced the infringement of the '787 patent, with knowledge of the '787 patent and that ProProfs' acts, including without limitation using, offering to sell, selling within and importing into the United States, ProProfs' accused

instrumentalities, would aid and abet and induce infringement by customers, clients, partners, developers and end users of the accused instrumentalities.

160. ProProfs' acts of infringement have caused damage to Disintermediation and Disintermediation is entitled to recovery of damages from ProProfs in an amount subject to proof at trial.

161. On information and belief, ProProfs has acted with disregard of Disintermediation's patent rights, without any reasonable basis for doing so, and has willfully infringed the '787 patent.

COUNT IV – INFRINGEMENT OF U.S. PATENT NO. 11,418,466

162. Disintermediation incorporates by reference paragraphs 1 to 137 above as if fully set forth herein.

163. On information and belief, ProProfs has infringed the '466 patent under 35 U.S.C. § 271, either literally and/or under the doctrine of equivalents, directly and/or indirectly.

164. Attached hereto as Exhibit H and incorporated into this complaint as alleged herein is a claim chart setting forth where in ProProfs' accused instrumentality each of the limitations of representative Claim 1 are found. On information and belief, the identified functionality was present in the accused instrumentality during the relevant times of infringement.

165. The foregoing claim chart is illustrative of ProProfs' infringement of the '466 patent. Disintermediation reserves the right to identify additional claims and accused instrumentalities in accordance with the Court's local rules and applicable scheduling orders.

166. On information and belief, ProProfs has contributed and is contributing to the infringement of the '466 patent because ProProfs knows that the infringing aspects of its accused instrumentality are made for use in an infringement and are not staple articles of commerce suitable

for substantial non-infringing uses.

167. On information and belief, ProProfs has induced the infringement of the '466 patent, with knowledge of the '466 patent and that ProProfs' acts, including without limitation using, offering to sell, selling within and importing into the United States, ProProfs' accused instrumentalities, would aid and abet and induce infringement by customers, clients, partners, developers and end users of the accused instrumentalities.

168. ProProfs' acts of infringement have caused damage to Disintermediation and Disintermediation is entitled to recovery of damages from ProProfs in an amount subject to proof at trial.

169. On information and belief, ProProfs has acted with disregard of Disintermediation's patent rights, without any reasonable basis for doing so, and has willfully infringed the '466 patent.

PRAYER FOR RELIEF

Plaintiff prays for the following relief:

A. A judgment that the '183 Patent, the '597 Patent, the '787 Patent, and the '466 Patent are valid and enforceable.

B. A judgment that ProProfs has directly infringed, contributorily infringed, and/or induced the infringement of one or more claims of the '183 Patent, the '597 Patent, the '787 Patent, and the '466 Patent.

C. A judgment that ProProfs' infringement of the '183 Patent, the '597 Patent, the '787 Patent, and the '466 Patent has been willful.

D. A judgment and order requiring ProProfs to pay Disintermediation damages resulting from Defendant's acts of infringement in accordance with 35 U.S.C. § 284, including supplemental damages for any continuing post-verdict infringement up until entry of the final

judgment, with accounting, as needed, treble damages for willful infringement as provided for by 35 U.S.C. § 284, and pre-judgment and post-judgment interest on the damages awarded;

E. A judgment and order finding that this is an exceptional case within the meaning of 35 U.S.C. § 285 and awarding to Disintermediation its reasonable attorneys' fees against Defendant.

F. A judgment and order requiring that Disintermediation be awarded a compulsory ongoing license fee; and

G. Any such other relief as the Court may deem just and proper.

JURY TRIAL DEMANDED

Plaintiff hereby demands a trial by jury of all issues so triable.

Dated: December 1, 2022

Respectfully submitted,

By: /s/ Melissa R. Smith

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